

UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA

UNITED STATES OF AMERICA	:	
	:	
Plaintiff,	:	Criminal Action
	:	No. 1:19-cr-59
v.	:	
	:	
DANIEL EVERETTE HALE,	:	February 25, 2021
	:	2:00 p.m.
	:	
Defendant.	:	Washington, D.C.
	:	
.....	:	

**TRANSCRIPT OF MOTION HEARING PROCEEDINGS
BEFORE THE HONORABLE LIAM O'GRADY,
UNITED STATES DISTRICT COURT JUDGE**

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Proceedings reported by machine shorthand, transcript produced
by computer-aided transcription.

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AFTERNOON SESSION, FEBRUARY 25, 2021

(2:14 p.m.)

THE COURTROOM CLERK: The Court calls *United States of America versus Daniel Everett Hale*, Case Number 1:19-cr-59.

Counsel, please note your appearances first for the government.

MR. KROMBERG: Your Honor, Gordon Kromberg, Alex Berrang, Heather Smith for the United States. With us at counsel table is FBI Special Agent Laura Pino.

THE COURT: All right. Good afternoon to each of you.

MR. RICHMAN: And good afternoon, Your Honor. Todd Richman and Cadence Mertz for Mr. Hale, who is present.

THE COURT: All right. Good afternoon to each of you. And good afternoon, Mr. Hale.

THE DEFENDANT: Good afternoon.

THE COURT: All right. This comes on for outstanding motions, mostly concerning the government's request for judicial notice and/or allowance of business records to be admitted prior to trial, and there's not a lot of disagreement between the parties on those motions.

Also, there's a motion for a *Daubert* hearing to question Dr. Eric Lang, the director of the Defense Personnel and Security Research Center, about his four-page report where he uses historical information to identify what he believes to be the value of exfiltrated documents, and the Defense objected to him

1 being -- to his -- the substance of his testimony and also the --
2 questioned the methodology that he used to get there, and I
3 believed that it was appropriate to question Dr. Lang about some
4 of the decisions that he made and how he came to his conclusions
5 to fill out some of the foundation and historical information
6 that he thought was important in arriving at his conclusions in
7 his report.

8 So how -- is Dr. Lang with us now? Yes?

9 THE COURTROOM CLERK: He's in a waiting room.

10 THE COURT: Yeah. Oh, he's in a waiting room. Okay.

11 Well, do you want to start, then, with -- how do you want
12 to proceed, Mr. Kromberg, or did you want to question Dr. Lang
13 and lead the examination, or do you want to turn it over to
14 Mr. Richman?

15 MR. KROMBERG: Judge, what my plan was was to ask
16 questions about Dr. Lang's qualifications as if to qualify him as
17 an expert and then ask him questions about the report. If the
18 issue is not his qualifications but how he did the report, I can
19 adjust my question -- I can try to adjust my questions
20 accordingly.

21 THE COURT: I don't have questions about his
22 qualifications. I think he, clearly, is qualified in the
23 research that he did in -- on behalf of PERSEREC and the -- his
24 own personal experience. And I didn't get a sense from Mr. --
25 from the -- Mr. -- either of Mr. Hale's counsel that that was

1 going to be an issue.

2 Mr. Richman.

3 MR. RICHMAN: All right. No, Your Honor, that's -- we're
4 not challenging his general qualifications to offer an expert
5 opinion. I would have a few questions, I guess, at the beginning
6 that relate to qualifications just because they relate to some of
7 the stuff I also will be asking, but the challenge is not to his
8 qualifications, it's to whether his opinions are reliably tied to
9 the facts of the case.

10 THE COURT: Well, then, Mr. Kromberg, why don't you give
11 the short version of his qualifications, still go into it, and
12 maybe that will satisfy Mr. Richman. If not, I'm not going to
13 preclude you from going into it if you feel it's important.

14 MR. KROMBERG: I will do my best to get through it
15 quickly, Judge.

16 THE COURT: Okay. Then why don't we go forward with the
17 questions for Dr. Lang and the report of his valuation of the
18 exfiltrated documents.

19 So let's bring on Dr. Lang and swear him in, please.

20 MR. KROMBERG: Judge, may I ask, what will Dr. Lang see?
21 Will he see you or me or --

22 THE COURT: I think he will see me in the background and
23 the questioner when questions are being asked; is that right?

24 THE COURTROOM CLERK: Yes. He can see the courtroom. He
25 can see the courtroom.

1 THE COURT: He can see the courtroom and one of his -- all
2 right.

3 THE COURTROOM CLERK: Good afternoon, Mr. Lang.

4 THE WITNESS: Good afternoon.

5 THE COURTROOM CLERK: Can you hear?

6 THE WITNESS: I can hear you fine.

7 How is my audio quality?

8 THE COURTROOM CLERK: Perfect.

9 THE COURT: Fine.

10 THE COURTROOM CLERK: Okay. Please raise your right hand.

11 (ERIC LANG, GOVERNMENT'S WITNESS, SWORN.)

12 THE COURT: And I guess it's good morning out there,
13 Mr. Lang -- Dr. Lang, and thank you for joining us today here for
14 what you, I'm sure, understand to be a *Daubert* hearing, which
15 is -- comprises questions about the report that you issued to
16 better help the Court understand the report and its importance to
17 a jury in a trial. So we're going to have Mr. Kromberg from the
18 U.S. Attorney's Office begin the questioning of you.

19 Is that all right with you, sir?

20 THE WITNESS: That's fine. Thank you.

21 THE COURT: Okay.

22 All right. Mr. Kromberg.

23 MR. KROMBERG: Thank you, Your Honor.
24
25

DIRECT EXAMINATION OF ERIC LANG

BY MR. KROMBERG:

Q. Dr. Lang, can you see me?

A. Could you raise your hand?

Q. Can you see me when I'm speaking?

A. Yes, I can.

Q. Okay. Cool.

So we have spoken over the phone many times, but we've never seen each other, correct?

A. Correct.

Q. Okay. Dr. Lang, please state your full name and tell the Court how you are employed.

A. My name is Eric Lawrence Lang. I am employed as a government civilian for the U.S. Department of Defense. I direct the Defense Personnel and Security Research Center, PERSEREC.

Q. And what is PERSEREC?

A. PERSEREC is a center dedicated to using science to improve the efficiency, effectiveness, and fairness of policies and operations related to personnel security. That's the clearance system, suitability, and the insider threat?

Q. Now, is it correct that you sent your vita, your CV, which is 31 pages long? And I think I sent you a copy of my -- that I had filed, correct?

A. I did send it to you.

1 Q. Okay.

2 MR. KROMBERG: And, Judge, I would --

3 BY MR. KROMBERG:

4 Q. I think that Your Honor has that and the Defense has it.
5 We are not going to go through it because, as Your Honor has
6 indicated, that -- we'll move more quickly through the
7 qualification stage of this and get to the issues of how the
8 studies were done quickly.

9 But this is your résumé, correct?

10 A. Correct.

11 Q. Or your vita? All right.

12 THE COURT: I'll admit that in -- his curriculum vitae for
13 the hearing today as Exhibit 1, which is included in your
14 government opposition.

15 MR. KROMBERG: Thank you, Judge.

16 (Government's Exhibit 1 admitted into the record.)

17 BY MR. KROMBERG:

18 Q. Can you sketch out, not in detail but relatively briefly,
19 your employment history and your educational background so the
20 Court gets some sense of how you got to be where you are today?

21 A. Certainly.

22 I have a bachelor's degree in psychology and then a
23 master's degree and doctoral degree, a Ph.D., in social
24 psychology. The master's and doctoral degrees were from the
25 University of Michigan.

1 Prior to my employment at PERSEREC, which started in
2 2005, I've been the director since 2011, I was employed onsite
3 with PERSEREC as a contractor. I was employed first by TRW as
4 an on-site defense contractor for PERSEREC. TRW was later
5 acquired by Northrop Grumman, so I was then a Northrop Grumman
6 employee. So I was an on-site contractor for about five years
7 at PERSEREC as a senior scientist.

8 Prior to that, I worked for approximately nine years at
9 Sociometrics Corporation, a social science business, as a
10 principal research scientist. And prior to that, at the
11 American Institutes for Research, AIR, as an associate research
12 scientist.

13 Those are the principal employment background items.

14 Q. Is it correct, Dr. Lang, that your vita, your CV that we
15 have referred to, contains a list of the professional
16 presentations you've made and the awards you've received and
17 where you have presented lectures?

18 A. That's correct.

19 Q. Okay. So we will not go into that. The Court can
20 obviously look through that at its -- in it -- as it sees fit.

21 So can you give us an overview of the statistical
22 procedures that you have used in your research?

23 A. Throughout my career?

24 Q. Particularly at PERSEREC.

25 A. Particularly at PERSEREC. We have used a variety of

1 statistical procedures. Some of them have to do with what's
2 called "parametric techniques." They have certain assumptions.
3 Others have to do with nonparametric techniques. I can describe
4 the difference, if you would like.

5 Q. Please do.

6 A. Some are --

7 Q. Okay.

8 A. Some are simple, what's known as "univariate" statistical
9 procedures and simple descriptive, and some are multivariate
10 procedures. And we have done some work on data science, what
11 some people call machine learning, and some advanced analytics.

12 To your question about the difference between parametric
13 and nonparametric, it's important in scientific evaluations to
14 make sure that the procedures employed to analyze data match the
15 requirements of the statistical procedure. And one classic
16 requirement for a whole set of statistical procedures is that
17 the underlying distribution of data is parametric or fits in a
18 class called "bell-shaped curves," essentially. And those are
19 curves that occur quite often in nature and social science.

20 If you look at adult heights or adult IQs, you see there
21 are a very few people who are very short, most people are
22 average height, and a very few people who are very tall. Same
23 for IQ. If the underlying data being analyzed fits a type of
24 bell-shaped curve, or normal curve we call them, then you can
25 use a statistical technique that is from the parametric class of

1 statistics.

2 If the data do not fall in that distribution, they don't
3 look somewhat like a bell or a normal curve, then there is a
4 parallel class of statistics called "nonparametric," and they
5 will give you the most accurate answer for analyzing that type
6 of data. I have done both.

7 **Q.** Thank you.

8 What is the exfiltration of data? What does exfiltration
9 mean in this context?

10 **A.** It means the unauthorized removal of sensitive data,
11 typically classified data. Distinguished from espionage where
12 there is typically a motive to provide that to an unauthorized
13 individual or group, exfiltration just means the unauthorized
14 removal, which is a risk. There have been exfiltration cases
15 where people hoard data in their house or they take it home for
16 benign reasons to meet a deadline. But taking classified
17 information home, in a nonsecure environment, is not authorized.
18 It's a risk. It's a violation of security rules and would count
19 as a form of exfiltration, regardless of the motive.

20 **Q.** Since the time that you became the PERSEREC director,
21 what work have you directed regarding individuals who have
22 exfiltrated data from the Department of Defense?

23 **A.** Principally, the effort -- I believe you have it as a --
24 an item for the Court. It's the exfiltration report. And that
25 project was a research project done while I was director. And

1 then there is a history of related projects, more broad in
2 scope, having more to do with espionage and more than Department
3 of Defense exfiltration that looks at all American spies against
4 America back to the Second World War and those report that was
5 published while I was a director called -- I would have to look
6 up the name. It's espionage trends report.

7 Q. So is it correct that what you have sent me before,
8 that -- what I have filed with the Court as 1- -- what's
9 Document 162-2 called "The Resource Exfiltration Project:
10 Findings from DoD Cases, 1985 to 2017," which is PERSEREC
11 TR-19-02, is that the report you were referring to that you --

12 A. It is.

13 Q. Okay. And the other one, The Expanding Spectrum of
14 Espionage by Americans, 1947 through 2015, is that Technical --
15 PERSEREC Technical Report 17-10, August 2017?

16 A. That's the other report.

17 Q. All right.

18 MR. KROMBERG: And, Judge -- Your Honor, I move that
19 exhibits -- those exhibits, which are marked as Exhibits 2 and 3
20 to our opposition pleading in 162-2 and 162-3B, be admitted into
21 evidence for purposes of this hearing.

22 THE COURT: All right. Any objection?

23 MR. RICHMAN: No objection, Your Honor.

24 THE COURT: All right. They're received.

25 (Government's Exhibits 2 and 3 admitted into the

1 record.)

2 BY MR. KROMBERG:

3 Q. Dr. Lang, who is the intended audience of these reports?

4 Well, let me go back.

5 What -- were you -- what was your involvement in these
6 reports? You were directing PERSEREC when they were compiled?

7 A. Correct.

8 Q. Okay. And you supervised the people who did them,
9 correct?

10 A. Correct.

11 Q. All right. Now, what was the -- what was -- who was the
12 intended audience for these reports?

13 A. The principal audience has been senior government
14 officials, particularly in Department of Defense. They have
15 gained interest and has been used by many other people
16 throughout the nation, and also, other nations have been very
17 interested and used them as well.

18 Q. So aside from the reports that PERSEREC has done, has
19 compiled regarding the exfiltration of data, what other reports
20 or information had -- has been used or found by researchers on
21 this subject?

22 A. The most common type of publication in this area tends to
23 be qualitative looking at particular cases. There are members,
24 former or current members, of the Intelligence Community, and
25 they will talk about nuances of particular cases. There are

1 very few quantitative and trend analyses of the type that
2 PERSEREC has published, the two reports that you mentioned.

3 **Q.** How do you ensure -- as a director of PERSEREC, how do
4 you ensure quality in PERSEREC's products?

5 **A.** We follow standard scientific principles for developing
6 questions, gathering empirical data, assessing the reliability
7 and validity of those data, and then choosing appropriate
8 statistical methods to analyze them and interpret their meaning.

9 The project directors at PERSEREC all have master's or
10 doctoral degree in the areas such as criminology, sociology,
11 social psychology, and we follow accepted scientific principles,
12 including those for documenting the results, such as the
13 American Psychological Association Manual.

14 In developing analyses and reports, we have a number of
15 internal quality control reviews and procedures so that
16 researchers, other than the ones who collected the data, will
17 look at the methods and the analyses they produced and give a
18 second opinion on anything that could be approved or questions
19 that they have. And then we also send them out to the
20 sponsoring government agency and, in many cases, policy offices
21 and other experts, as needed, who may comment on them and help
22 us improve the methods for analysis.

23 **Q.** Dr. Lang, when you have a set of data, how do you choose
24 the appropriate statistical test?

25 **A.** We look at the number of cases collected. We look at the

1 characteristics of the data, for example, whether they fit that
2 normal curve or not. If they don't, then we don't use a
3 parametric test, we use a nonparametric test. And then we
4 ensure that the type of analysis we do is appropriate for the
5 original question and the kinds of statements, results, and
6 conclusions that could be drawn.

7 **Q.** This may be a basic question, but what -- in the field of
8 statistics, what is the -- what is a mean, M-E-A-N?

9 **A.** A mean is an arithmetic average. Classically, you add up
10 all the numbers in your sample, and you divide that sum by the
11 number of items in the sample, and that result is an arithmetic
12 mean.

13 **Q.** In the context of statistics, what is a median,
14 M-E-D-I-A-N?

15 **A.** A median is the value in a set of data -- if you arrange
16 those data from smallest to largest, it is the value that
17 divides half of the data points in the top from half of the data
18 points in the bottom. It divides the largest half from the
19 smallest half of data. It's the middle or median value.

20 **Q.** Is the median -- how does the median relate to the mean
21 in a particular set of data?

22 **A.** If you have a normal bell-shaped set of data, the mean
23 and the median will be exactly the same, because that
24 bell-shaped curve is symmetric on both sides, so the mean and
25 the median are the same.

1 A median is useful if you have a nonnormally distributed
2 set of data. For example, if you have several extremely large
3 values, if you have extremely large values, when you calculate
4 an arithmetic mean, those large values will greatly pull up the
5 mean value, whereas they will less affect a median value.

6 **Q.** In the context of statistics, what is the appropriate
7 test to perform on the data available to you, and how do you
8 determine the statistical significance of the test outcome?

9 **A.** Are you asking in general or for the exfiltration data?

10 **Q.** For the exfiltration data.

11 **A.** The exfiltration data were clearly not normally
12 distributed. There were, for example, four very large values
13 and four zero values.

14 The correct thing to do, even though it's obvious to
15 someone with experience that it's not normal, is you can do a
16 test for normality to see if that distribution is significantly
17 different from a normal curve.

18 I did that test, and to no surprise, it showed that that
19 distribution was not normal.

20 **Q.** When you say --

21 **A.** That meant --

22 **Q.** I'm sorry.

23 **A.** Go ahead.

24 **Q.** When you say it was obvious, that's because there were
25 four values that were zero and four values that were high,

1 correct?

2 **A.** Correct.

3 **Q.** Okay. I think I might have asked that last question out
4 of order. Let me go backwards a little bit.

5 Based on public sources, how many people have been
6 convicted of exfiltrating data from the Department of Defense
7 since 1985?

8 **A.** Eighty-three, as we report in that publication. And, of
9 course, that's to the best of our knowledge, being as thorough
10 as possible in reviewing court documents and the other public
11 open source information about convictions.

12 **Q.** So in determining -- in looking at these cases, did you
13 look at any nonpublic data?

14 **A.** No. We -- if, for example, the Intelligence Community
15 has data that they do not make public, we would not have access
16 to that. If there are sealed court records that are not
17 available to standard searches, we would not have availability
18 of that.

19 **Q.** Okay. So what were the -- what cases did you look at to
20 determine those 80-something cases? I mean, what were the
21 criteria that you used?

22 **A.** For this report, we used three criteria. They're
23 outlined in the report. One is that there needed to be a
24 conviction, I believe, after November of 1985 and up until the
25 end of 2017. I'll defer to the report for the exact -- the

1 second criteria had to do with a conviction, rather than simply
2 an arrest. And the third criteria --

3 Q. Was the exfiltration itself, correct?

4 A. Correct.

5 Q. Okay. So the report --

6 MR. KROMBERG: And I'm not sure if the Court has the
7 report. I think that the defense attached the report to its
8 initial motion. I'll be happy to pass up to the Court --

9 THE COURT: No, I have the report.

10 MR. KROMBERG: Okay. All right. And so we move that that
11 be admitted as Exhibit 4, if it's not already.

12 THE COURT: Any objections?

13 MR. RICHMAN: No objection, Your Honor.

14 THE COURT: All right. It's received.

15 (Government's Exhibit 4 admitted into the record.)

16 MR. KROMBERG: Thank you.

17 BY MR. KROMBERG:

18 Q. So with respect to the individuals that were covered by
19 this report -- well, let me ask you a very basic question.

20 Why did you do this report?

21 A. The Department of Defense has the largest component of
22 the U.S. government, and having the most cleared individuals,
23 has an inherent interest in protecting that information,
24 particularly national security information. We do -- we did
25 this report and reports like it to provide science-based

1 insights to the Department of Defense on how information is
2 exfiltrated and the circumstances that could help the government
3 understand it better and protect it better.

4 Q. So the research note that you sent in -- as of
5 September 2020, why did you do that research note?

6 A. That research note was instigated by a call from you, and
7 the question that you asked me was a question that I thought
8 would be relevant and useful to the Department of Defense and
9 other government officials. When you asked me that question
10 about valuing exfiltrated documents, I was not aware of any
11 other publication that addressed that question. And I realized
12 that we had data in the exfiltration project that could speak to
13 it and that a result of that analysis could be useful.

14 Q. All right. Now, of the 80-something cases that were
15 the -- 83 cases that were the subject of the research note, how
16 many documents did each of those 83 individuals take?

17 A. That varied. In some cases, it was one document. In
18 other cases, there were multiple documents. And, of course, it
19 calls into question about what is a document, because in some
20 cases, it was electronic information of various types.

21 Q. Were -- how many of the individuals took documents that
22 were classified, and how many took documents that were not
23 classified?

24 A. I don't have an exact number for that. In many cases, it
25 was -- the information exfiltrated was a variety of classified

1 and otherwise sensitive information.

2 Q. And when you say "otherwise sensitive," do you -- what do
3 you mean -- or, excuse me, when you say "classified," what do
4 you mean?

5 A. Classification means that it was marked by an appropriate
6 classification official as confidential, secret, or top secret,
7 and then there are other classification markings having to do
8 with the Intelligence Community and Special Access Programs.
9 But those are the three principal classification designations.

10 Q. And are there designations for information that was not
11 classified but was still sensitive?

12 A. Yes. There are markings such as controlled unclassified
13 information, CUI. There are designations such as for official
14 use only, FOUO, and those should not be provided to the public
15 or unauthorized receivers.

16 Q. Of the 83 cases that you analyzed, did you categorize
17 them on the basis of whether the exfiltrator was motivated by
18 money?

19 A. Yes. We looked at as much of the source documentation.
20 We had multiple coders. We have multiple coders so that we
21 tried to get reliability and consensus in the interpretation of
22 motives, and we assessed the motives as best as we could
23 ascertain of the exfiltrator, some of them having more than one
24 motive.

25 Q. When you say there were multiple coders, what is a coder?

1 **A.** A coder is an individual, a researcher, a trained
2 researcher, who looks at source documents, such as court
3 documents, news articles, information that they can find on a
4 particular conviction, and then assesses them into categories
5 such as, was the individual motivated by greed? Was the
6 individual motivated by ideology? There is a little bit of
7 subjective interpretation. And we have more than one coder, so
8 we get independent assessments of each of those motivations, and
9 we hope that those multiple independent assessments are the
10 same, and if not, then we look for yet another independent way
11 to find confirmation on the best designation of one or more
12 motives for that individual.

13 **Q.** With respect to the research note from September 2020, is
14 it correct that all of the coders worked for you at PERSEREC?

15 **A.** They worked for PERSEREC, but they were likely our
16 principal contractors. Our office research team is a mix of
17 government employees and defense contractors. Right now that
18 contract is held by Peraton. Back then, they were Northrop
19 Grumman employees. Peraton recently bought out that division of
20 Northrop Grumman. So the coders were likely defense contractors
21 working on a PERSEREC contract.

22 **Q.** So, of the individuals that appeared to have been
23 motivated by money, how many instances -- in how many instances
24 was PERSEREC able to find open source intelligence that
25 referenced how much money they requested, received, or were

1 offered?

2 A. Twenty-eight.

3 Q. All right. So, is it correct that you -- the coders
4 found 40 individuals that appeared to have -- 40 of the 83
5 appeared to have been motivated by money, and of those 40, you
6 were unable to find information about how much money 12 of them
7 requested, received, or were offered?

8 A. That is correct.

9 Q. Okay. How did you assess how much to value each
10 exfiltration of those 28?

11 A. Um, as I point out in the research note, there are many
12 logical ways that one could assess value, but to do it in a way
13 that is most objective, we need data, and the data that we had
14 was the actual money received by the exfiltrator. So that is a
15 kind of market value of what a -- an entity was willing to pay
16 for documents. That is one definition of value. That's what we
17 had data on, and that's what we used in the analysis.

18 Q. So of the 28 perpetrators, how -- what was the range of
19 the amounts of money they received?

20 A. I believe the largest amount was \$636,000, and there were
21 four cases where we show zero because they appeared to be
22 motivated by money, but it was not clear that they received any.

23 Q. So of those 20- -- of those -- of the 24 who received
24 money, what was the mean and median? And you can refer to the
25 report if it's helpful to you.

1 **A.** Right.

2 Of the 24, the mean value was \$67,102. The median value
3 was \$9,000.

4 **Q.** What was the significance of \$1,000 as a threshold in
5 this study?

6 **A.** Um, exfiltration cases are sometimes prosecuted under
7 U.S. Code 18641, which stipulates that if the value exceeds
8 \$1,000, then a larger penalty can be applied.

9 **Q.** Actually, let me go back with one question, if I might.
10 Sorry for getting a little out of order here.

11 But you talked about the mean and median for the 24
12 individuals. If you included -- did you also calculate what the
13 mean and median were if you included the four individuals who
14 appeared to be motivated by money but received zero?

15 **A.** I did.

16 **Q.** And what was the results for that?

17 **A.** The mean value was \$57,516; the median value was 7,000.

18 **Q.** Now, how do you test -- which of the two -- you -- so
19 you've given us two sets of numbers. One is with the 28
20 individuals, four of whom received no money and including no --
21 including zero for those people, and one is just figuring out
22 the 24 who received more than zero.

23 Do you see a significance to one value more than -- as
24 better than the other, more helpful?

25 **A.** There are -- there is reasonable logic to use either set,

1 a set based on 24 or 28, but the conservative approach would be
2 not to eliminate the four zero values because it is possible
3 they were motivated by money and somehow the valuation of their
4 information was zero. On that possibility, the most
5 conservative analytic approach would be not to eliminate them.
6 So I included the set of analyses for all 28.

7 Q. How do you test -- okay. Now, going back to that
8 1,000-dollar threshold, how do you test whether the difference
9 between the median and the threshold is significant?

10 A. As I said, because these data were nonnormally
11 distributed, the test applied would have to be a nonparametric
12 test. In the case where you are comparing a sample average, a
13 sample median, to a particular value, which is what we're doing
14 here, the appropriate test is called a "Wilcoxon one-sample
15 signed rank test."

16 Q. Okay. I'll stop you there.

17 A. {Indiscernible}.

18 Q. Just for the court reporter, Wilcoxon, W-I-L-C-O-X-O-N?
19 How do you spell Wilcoxon?

20 A. You spelled it correctly.

21 Q. Cool. Okay.

22 And sign is S-I-N-E, correct?

23 A. S-I-G-N.

24 Q. Oh, okay. S-I-G-N. Thank you. Please go on.

25 A. So that is the correct statistical procedure to apply to

1 this data for this question.

2 Q. And what is that procedure?

3 A. It's a procedure like many statistical procedures when
4 you're comparing the averages of multiple groups, two groups, or
5 the average of one group to a particular value of interest.

6 Those comparisons between the average and the value -- point
7 value of interest may not be exactly alike, and the question is,
8 are they very close and reasonably considered the same, or are
9 they significantly different and therefore different groups and
10 come from different underlying populations? And the probability
11 theory underlying the tests answer that question about whether a
12 particular difference, in this case between a group average and
13 a point value of interest, \$1,000, is significantly different.

14 Q. What is the P value? What -- P as in the letter P.

15 A. P stands for probability, and that is often what you
16 interpret as part of the outcome of a statistical test. It's
17 giving you the probability that the observed difference between
18 the average and the point estimate of interest, 1,000 in this
19 case, is likely to have occurred by chance. And in social
20 sciences, you usually use a P value of .05 to indicate that you
21 can reject the null hypothesis that the two groups are the same.
22 So when you get a P value of .05 or smaller, you can have
23 confidence that those two values of interest, in this case the
24 average and the \$1,000, are significantly different.

25 Q. And what was your conclusion in this particular instance?

1 **A.** The P value for the statistical test, the Wilcoxon
2 one-sample signed rank test, was smaller than .05. In fact, it
3 was smaller than .001.

4 **Q.** And that means to you what?

5 **A.** That means that whatever distribution that applies to the
6 value of exfiltrated data, that 7,000-dollar average, is
7 significantly different and higher than \$1,000.

8 **Q.** I notice -- we all notice that you're using the
9 7,000-dollar value rather than -- the median value of 7,000
10 rather than the mean value of 57,000.

11 Why is that?

12 **A.** In the Wilcoxon one-sample signed rank test, because it
13 is a nonparametric test, it requires the use of the median, not
14 the mean. That is the appropriate application of that test.

15 **Q.** So what do you see as the limitations of the analysis
16 that you did for the research note in September 2020?

17 **A.** The limitations are -- there's a trade-off between
18 wanting more data to have more information and a more stable
19 statistic, but one typically does not try to include more data
20 if they are not of sufficient quality.

21 So in this case, we could have gotten more data about
22 exfiltration by using arrests, regardless of conviction. I did
23 not -- or the researchers who conducted this project did not
24 think, and I agree, that that was a good way to conduct this
25 study because it opens up a possibility that some arrests would

1 not end in conviction, and therefore, the values noted may not
2 have applied, and we want to make sure that we have reasonably
3 good quality. So we limited it to those with convictions, which
4 results in a smaller sample of higher quality to analyze.

5 In addition to that, one could argue for adjusting the
6 values to current inflated dollar values. That's legitimate.
7 In this case, those values observed, the exfiltrated values
8 listed, would be larger because they occurred in the past, and
9 they would be inflated to either 2017 dollars or 2021 dollars.
10 I wanted to provide data in their most original and accurate
11 form. So those values are in their original form.

12 Q. If you had compensated for inflation, would the
13 difference between the 1,000-dollar threshold and the
14 7,000-dollar median be greater or smaller?

15 A. Almost certainly, it would be greater because the values
16 would inflate upwards as we made them into 2021 equivalent
17 dollar values, and that would increase the difference away from
18 the 1,000 point of interest.

19 Q. And what's the significance of the difference between the
20 threshold and the 7,000-dollar median in this case -- in this
21 study?

22 A. I'm not sure what you're asking.

23 Q. What does it mean that there's a -- to the social
24 scientist, what difference does it make what the difference is
25 between a threshold and the median -- excuse me, the magnitude

1 of the difference?

2 **A.** So, as I said, generally in the social sciences, a
3 difference between any two numbers, in this case an average and
4 a standard of interest, could be insignificant in the sense, if
5 we looked at the average height of two groups of adult males and
6 one, you know, has a thousand people in it and they average
7 five-foot-nine and the other group averages five-foot-nine and a
8 16th of an inch, well, those two averages are different by 16th
9 of an inch, but it's not a meaningful difference. They are
10 essentially statistically the same.

11 And in this case, we wanted to see, is that difference
12 between 7,000 and 1,000 a trivial difference, essentially the
13 same, or is it a statistically reliably different magnitude, and
14 the test result says they are not the same. It is statistically
15 reliably a much larger number.

16 **Q.** So going back to the limitations of the study, what
17 impact on the study did the -- did your reliance on -- only on
18 open source information have?

19 **A.** If, for example, there were either sealed or highly
20 classified data sources that were wildly different from what we
21 observed, that could change the analysis and the result.

22 **Q.** So let me ask for your conclusion.

23 What was the basic conclusion from your study regarding
24 the monetary value of documents exfiltrated from the Department
25 of defense over the last 35 years?

1 **A.** Well, the mean and median would be a reasonable low
2 estimate of the value of exfiltrated documents, and I say low
3 because there are logically many ways to assess what the value
4 of an exfiltrated document might be. Those documents can cause
5 all kinds of financial consequences and harm that results in
6 financial expenses. We don't have the data to assess that.

7 What we have is what these other entities actually
8 provided and then the exfiltrator received. That is a low
9 estimate in the same way that, if you put out a piece of art for
10 an open auction and you get many competitive bidders, you will
11 likely get a higher price than if you take it to a pawnshop and
12 negotiate with only one person there.

13 **Q.** Thank you, Dr. Lang. I have no further questions for
14 you, and please answer the questions of the defense attorney,
15 Mr. Todd Richman.

16 CROSS-EXAMINATION OF ERIC LANG

17 BY MR. RICHMAN:

18 **Q.** Good afternoon, Dr. Lang.

19 Can you see me, I'm raising my handle as well?

20 **A.** I can.

21 **Q.** Okay.

22 **A.** Thank you. Good afternoon.

23 **Q.** Good afternoon.

24 And you can hear me?

25 **A.** I hear you fine, thanks.

1 Q. Thank you.

2 Now, I noticed on direct, you mentioned that this -- the
3 type of data that you provided in your report that was prepared
4 in Mr. Kromberg's -- in response to Mr. Kromberg's question, you
5 said that was the type of data that didn't exist, to your
6 knowledge, before; is that right?

7 A. I am not aware of reports that analyze and produce dollar
8 value averages across a large set of data.

9 Q. Of exfiltrated DoD documents --

10 A. Correct.

11 Q. -- right?

12 A. Correct.

13 Q. Okay. So, then, it's a -- it's fair to say that prior
14 to -- and -- prior to writing this report and doing the work
15 related to this report, it had not been a regular part of your
16 employment to determine the value of exfiltrated DOD documents?

17 A. Correct. PERSEREC, to my knowledge, has not looked at
18 averages across large collections, monetary averages.

19 Q. Well, setting aside monetary averages, had you ever tried
20 to place a value on exfiltrated DOD documents, either
21 individually or as an average?

22 A. No.

23 Q. Do you have any training or education that would be
24 specific to doing that?

25 A. Only in collecting quantitative data to answer questions

1 like this. I am not a trained insurance accountant.

2 Q. And that training is really to general statistical
3 analysis, correct?

4 A. Statistical analysis and social science at large.

5 Q. Right.

6 Now, with respect to the work you did on this report, did
7 you review any specific exfiltrated documents?

8 A. I have seen many of the documents because these
9 individuals have been in the news. I did not review all the
10 source documents that went into the analysis.

11 Q. And did anything about the substance of the documents,
12 either the ones at issue in this case or the ones in the
13 comparator cases, did any of -- was anything about the substance
14 of those documents taken account of in your analysis?

15 A. Um, I'm not sure what you're asking.

16 Can you rephrase that?

17 MR. KROMBERG: If I can -- I think the confusion is, I
18 don't think the witness understood himself to be saying that he
19 saw the documents in this case.

20 MR. RICHMAN: And I guess that's what my -- my question
21 is.

22 BY MR. RICHMAN:

23 Q. Had you seen --

24 MR. RICHMAN: That's my initial question, I mean.

25 BY MR. RICHMAN:

1 Q. Had you seen the documents that are at issue in this
2 case?

3 A. Meaning all of the public source records for the 83
4 cases?

5 Q. I'm talking about the one -- so the case that we're in
6 court for, United States versus Hale, have you seen the
7 documents that are at issue in that case, the allegedly
8 exfiltrated documents?

9 A. Oh, I have seen those documents.

10 Q. Okay. Did anything about the substance of those
11 documents inform the analysis put forth in your report?

12 A. Um, it informed in the sense that there was a mix of
13 documents allegedly exfiltrated, and I saw no way to find values
14 for those specific documents or ones exactly like them. And so
15 in my mind, those documents are in a class of classified and
16 sensitive documents. So in my approach to the research note, I
17 analyzed information about the general class of classified and
18 sensitive documents.

19 Q. Now, just briefly, you talked on direct about previous
20 reports you had written in the field of espionage offenders. I
21 think you referred to one as the espionage trends report,
22 something to that effect.

23 Do you recall that?

24 A. And to clarify, I am not an author on that report. I was
25 the director when it was produced, and I'm familiar, and I

1 played my role in quality control for that report.

2 Q. Understood.

3 And that report was primarily about the characteristics
4 of offenders; is that accurate?

5 A. Correct.

6 Q. It wasn't about the value of documents that had been
7 exfiltrated?

8 A. Correct.

9 Q. Now, moving to the work that you did in this report, just
10 to make sure I understand, you started with identifying the 83
11 cases that fit the characteristics you were looking for in a
12 certain time period, right?

13 A. Correct.

14 Q. And you divided them into those that were primarily
15 motivated by money, which was 40, and 43 others that were not;
16 is that right?

17 A. Correct.

18 Q. And the 43 that were not, you set aside and didn't do
19 anything further with, right?

20 A. For the purposes of the analysis appearing in the
21 research note, that's correct.

22 Q. Okay. And then of the 40 that were motivated by money,
23 or primarily motivated by money, there were 28 where you could
24 determine -- or to your standards necessary for your report, you
25 could determine a value, and those are the 28 that formed the

1 basis for your report; is that right?

2 **A.** Correct.

3 **Q.** Now, in doing that initial decision to cut off 43 cases,
4 did you consider if there could be substantive differences
5 between the types of documents that might be at issue when one
6 is motivated by money and when one is not motivated by money?

7 **A.** Um, it was not relevant to the issue of determining the
8 value of exfiltrated documents, which is why, to answer that
9 question, we focused on the 28 cases.

10 **Q.** Well, did you consider whether there could be differences
11 that would be relevant to value, or did you just assume that
12 there would be no differences that would be relevant to value?

13 **A.** Um, we assumed -- I assumed that the most relevant way to
14 answer the question of value was to look at individuals
15 motivated by money and the amount of monies received.

16 **Q.** If you start the analysis from that assumption, does the
17 conclusion carry equal weight as to the likely value of
18 documents exfiltrated by people who weren't motivated by money?

19 **A.** Um, I don't believe motivation relevant -- relative to
20 the question of value, I don't believe motivation is relevant,
21 just as if an art thief takes a piece of art because he wants to
22 enjoy it in his living room. That is a separate issue from the
23 value of the art piece because it may be insured, and it cost
24 the original owner some amount of money. There is an objective
25 value, market value being one way, that is independent from the

1 motivation of a particular thief.

2 Q. Um, I don't want to harp on this, but I want to just use
3 one example to see if I can -- see if you can understand what
4 I'm getting at.

5 Do you recall -- for example, I'll stay within the area
6 of the Department of Defense -- the Battle of Tora Bora where
7 the U.S. allegedly had a chance to get Osama bin Laden and
8 failed? Do you recall that battle?

9 A. I do.

10 Q. So there might be a set of documents that show, and I'm
11 just throwing out a hypothetical, that field commanders had
12 requested more personnel to seal off the escape routes so they
13 would be able to get bin Laden, and officials back in Washington
14 denied them.

15 Using that as an example, before the battle, one might --
16 that set of documents might be sold to Al-Qaeda or to somebody
17 affiliated presumably for a lot of money that would help them
18 protect their leaders, right?

19 A. I'm sorry, what -- the set of documents having to do with
20 U.S. intelligence at Tora Bora?

21 Q. Having to do with the battle plan and the failure to seal
22 off the escape routes.

23 If you're talking about before the battle, that might be
24 worth a lot of money to our enemy, right?

25 A. It's theoretically possible.

1 Q. After the battle, somebody might disclose that to a
2 reporter because they're mad at policymakers in Washington,
3 right, to show that policymakers had denied the necessary troops
4 to carry out the battle effectively?

5 A. I see that that is theoretically possible.

6 Q. And the financial value of it to, say, an opponent in war
7 would be totally different if it's after the battle, right, I
8 mean, how much value Al-Qaeda paid for our battle plan after the
9 battle?

10 A. I can't speak to that.

11 Q. Less, right?

12 A. I can see the logic for it being less.

13 Q. So would you concede that people who are motivated not by
14 money might take documents, that would be different in terms of
15 their market value because they are not motivated by money than
16 people who are taking documents that are motivated by money?

17 A. It's possible. But the purest way to answer the question
18 is to look at actual empirical data, which is the values for the
19 exfiltrated documents for which there was an exchange of money.

20 Q. Right. So I -- I'll move on. Sorry, I'm trying to move
21 forward through my list.

22 So once you identified the 28 cases that are in the
23 appendix to your report, as you said on direct, you then
24 calculated both a median and a mean, right?

25 A. Correct.

1 Q. And the median is literally essentially drawing a line
2 between entry 14 and 15, right, to show which 14 are below and
3 14 are above?

4 A. Correct.

5 Q. And the mean is, we're just adding up all the values and
6 dividing by 28, right?

7 A. Correct.

8 Q. So in terms of calculating the median and the mean, you
9 didn't perform any statistical analysis beyond simple math,
10 right?

11 A. Sometimes statistics include simple math, you're correct.

12 Q. No, I understand. I'm just trying to make sure I
13 understand what you did here.

14 And as to the values that you used, your report -- and I
15 think on direct, also, you said sometimes it was a requested
16 value, sometimes it was a received value, and sometimes it was
17 an offered value, right?

18 A. Correct.

19 Q. Do you know how many fell into each of those three
20 categories?

21 A. I do not.

22 Q. Now, a received value in an arm's-length transaction is
23 better evidence of market value than either of the other two;
24 isn't that accurate?

25 A. Correct.

1 Q. I mean, just -- and again, I'm not going to belabor it,
2 but I could list my home for \$10 million today, it doesn't
3 really mean it's worth that or even -- its not particularly
4 meaningful to whether it's worth that, right?

5 A. Correct.

6 Q. And the same in, like, a sting case, if law enforcement
7 offers an employee a lot of money sort of to entice them to sell
8 something, it's not necessarily indicative of what it's actually
9 worth on the market, right?

10 A. That's correct.

11 Q. But you gave -- and you're aware that some of the cases
12 in the 28 were, in fact, sting operations, right?

13 A. I believe they were.

14 Q. And in any event, you used all 28 values at face value as
15 indicative of fair market value, right?

16 A. Correct.

17 Q. Now, I -- and I think I tried to ask this before, but I'm
18 going to try to ask it more clearly.

19 For each of the documents in question, did you consider
20 individualized factors like how recent the document was at the
21 time of its exfiltration as to what that might mean for value?

22 A. I'm not sure what you're asking. It was the
23 documentation we could find per the three qualifications for a
24 case ending up in the study.

25 Q. Right.

1 Meaning -- well, I think the answer is that you gave each
2 item equal weight whether the document was a week old or a year
3 old or a decade old, correct, at the time it was exfiltrated?

4 **A.** Are you talking about the monetary value?

5 **Q.** Correct.

6 **A.** Yes. So those are in the dollars of the time when they
7 were received.

8 **Q.** And you also gave equal weight to each entry regardless
9 of its length, right? Whether it's a one-page document, a
10 thousand pages, a million pages, it just got equal weight in
11 your analysis, right?

12 **A.** Correct. In some cases, there could have -- the monetary
13 value could represent the aggregate of several payments
14 received.

15 **Q.** So in sum, your -- the purpose of your report, if I
16 understand it correctly, is to give an average and median value
17 of exfiltrated documents just based on historical information
18 without any reference to factors individual to the documents; is
19 that right?

20 **A.** Correct. It's to make a general statement about the
21 value of exfiltrated information, classified and sensitive.

22 **Q.** Now, how, if at all, does your opinion in the report
23 assist someone in determining whether a particular document is
24 more like, on the one hand, the 7 in your chart out of 28 that
25 are worth less than \$1,000 or whether a particular document is

1 more like the 21 in your chart that are worth equal to or more
2 than \$1,000?

3 MR. KROMBERG: Objection, Your Honor. I don't think that
4 this is a question for the expert.

5 THE COURT: Overruled.

6 THE WITNESS: Um, if there was sufficient similar
7 financial transaction data for documents very similar to the ones
8 allegedly exfiltrated, then that information would be most
9 relevant. When I looked at the list of documents allegedly
10 exfiltrated, I was not aware of any extant information or method
11 to calculate specific financial values for those specific
12 documents, and therefore, I treated them as a general class of
13 classified and sensitive information.

14 And to answer the question about their value, I used
15 information that was available about that class, classified and
16 sensitive information, so that an inference could be drawn that,
17 when specific financial value of a specific document is not
18 known, one could reasonably infer that it's similar to the class
19 category of classified and sensitive information.

20 BY MR. RICHMAN:

21 Q. Okay. Going back to my question, is it fair to say,
22 then, that it doesn't help one determine whether any particular
23 document in the class is closer to the lower 7 on the chart or
24 the upper 21 on the chart?

25 A. It does in the sense that if you don't know and you want

1 your best, reasonable assumption, you can use information about
2 the class to make a reasonable assumption. And in this case,
3 the information about the class is that those documents, being
4 from the class of classified and sensitive information, would be
5 worth a median of \$7,000, or if you use the mean, more. That
6 would be the best inference you could draw about the value of
7 documents not knowing, not having specific information about the
8 specific documents exfiltrated.

9 Q. And presumably, you would say the same thing if you were
10 testifying in a trial, say, involving case 24 on your chart
11 which ultimately had a value of \$200?

12 A. Um --

13 Q. If the value in that case hadn't been determined, you
14 would say the best, reasonable estimate is to look at all the 28
15 and look at the median?

16 A. If there was a case where we could not reliably estimate
17 the financial value, I would say the best inference is based on
18 the class, whether it's like something in the 200-dollar or the
19 600,000. If you don't know the value of a specific document,
20 you go to an inference based on a similar class of documents.

21 MR. RICHMAN: Court's indulgence, briefly.

22 THE COURT: Yes.

23 (Brief pause in proceedings.)

24 BY MR. RICHMAN:

25 Q. Going back to that espionage trends report you talked

1 about, I understand you didn't author that, but you said you
2 were involved in the -- I guess, the editorial process; is that
3 right?

4 A. Correct. I met with the researchers occasionally. I
5 reviewed multiple drafts of it, helped with resolving quality
6 issues.

7 Q. And as we talked about it, it largely looked at the
8 characteristics of offenders who commit exfiltration-type
9 offenses, right?

10 A. That's correct. It looked at trends in motives and
11 techniques and whether they were recruited or volunteered,
12 things like that, ages, years of exfiltration, those kinds of
13 things.

14 Q. And one of the motivations you testified about was that
15 some people are motivated by greed, right?

16 A. Correct.

17 Q. Those people that are motivated to take documents that
18 they could get the most money for, right?

19 A. Correct.

20 Q. People who are not motivated by greed aren't -- don't
21 have that same motivation, right?

22 A. Uh, we -- if we -- we can't absolutely determine that
23 someone does not have a motivation for greed. What we can say
24 is, where there's evidence of greed, then we make that
25 interpretation.

1 Q. Right.

2 But where there's clear motivation of something
3 different, then greed -- perhaps a desire to inform the public
4 of something or a desire -- or some ideological reason, then
5 that person does not appear to have the same motivation to
6 maximize value as a person motivated by greed, right?

7 A. Correct.

8 MR. RICHMAN: All right. I have no further questions,
9 Your Honor.

10 THE COURT: All right. Doctor, let me ask a few
11 questions.

12 In your background and method in your report, you indicate
13 that estimating the value of exfiltrated resources is difficult,
14 and you then go on to list some possible considerations,
15 including the costs of producing the original resource, the costs
16 of replacing the resource, potential financial gain by the
17 unauthorized recipient and -- direct and indirect financial, and
18 intangible harm caused by the resources being compromised.

19 Did you, in your study, consider whether to use some of
20 these other considerations before going to the class valuation?

21 THE WITNESS: Yes. For example, a top secret document, by
22 the definition of top secret, has the potential to cause
23 extremely grave damage to national security if it falls into the
24 hands of an unauthorized receiver, and an example of that could
25 be an attack on the U.S.

1 If I had a way to estimate all of the financial
2 consequences of an attack on the U.S., if I could reliably
3 estimate that, I would have included it. Not having a way to do
4 that, I relied on what would be a reasonably objective method for
5 ascertaining financial value.

6 THE COURT: All right. And you did not differentiate in
7 value whether a document was confidential or secret or top
8 secret, and considered all sensitive exfiltrated documents.

9 Why did you make that decision?

10 THE WITNESS: Um, I had, again, no access to empirical
11 data to estimate what the difference between those different
12 kinds of sensitive documents might be, so I treated them as a
13 class of classified and sensitive.

14 THE COURT: So it just wasn't possible with the data that
15 you had to make those types of comparisons?

16 THE WITNESS: Correct.

17 THE COURT: And would that be the response you would give
18 as to having -- I understand that you did review the sensitive
19 documents that are at issue in the U.S. v. Hale case?

20 THE WITNESS: I did see them briefly. I believe that
21 might have been around July of last year, and they were on a
22 classified network. So I could not -- as we're discussing in
23 this trial, I could not take them out of that classified room. I
24 could not even take notes and bring them back for the purposes of
25 this trial because the notes would be classified.

1 So I reviewed them for about an hour, realized that I was
2 not aware of any way to value the specific documents, and came to
3 the conclusion that the best reasonable information I could
4 provide for an inference on the value of exfiltrated documents
5 would be to treat it as a class of classified and sensitive.

6 THE COURT: Okay. You indicated that it's beyond the
7 scope of your analysis to estimate the specific value of newly
8 exfiltrated documents, and that's for the reasons that you've
9 just provided; is that right?

10 THE WITNESS: Correct.

11 THE COURT: Okay. All right. Mr. Kromberg, do you have
12 any other questions?

13 MR. KROMBERG: Yes, Your Honor.

14 REDIRECT EXAMINATION OF ERIC LANG

15 BY MR. KROMBERG:

16 Q. I think I might be summarizing what has been said before,
17 but, Dr. Lang, is -- are you aware of any quantitative method to
18 determine the monetary value of information where the
19 information has not been offered for sale?

20 A. I know of no data that provides that. It is not beyond
21 the realm of possibility that some team of economists and
22 insurance professionals could somehow develop a method of
23 ascertaining all of those direct and indirect costs and
24 consequences of personnel actions and protection actions and
25 technological consequences and come up with an estimate. I do

1 not know that it has ever been done, and it would be a huge and
2 a complex task to get reliable estimates.

3 Q. You were asked by Mr. Richman about how much time it took
4 to add up the numbers and divide them.

5 What percent would you say -- let me take that back.

6 How would you compare the time it took to add up the
7 numbers and divide them to the time it took to select the cases
8 and identify the data and figure out how to manage it?

9 A. Are you talking about in the original exfiltration study?

10 Q. No, just in this -- for the September report, the
11 September note.

12 A. Well, I'm not sure I understand what you're asking. It,
13 of course, takes many, many, many labor hours to assess
14 documents to come up with coded information about motivations
15 and to find, you know, financial values. Once that information
16 is available, it's relatively time efficient to simply create a
17 statistical average.

18 Q. Is there a way to quantify in money terms how much more
19 valuable information that is labeled "top secret" is than is
20 labeled "confidential"?

21 A. Um, I do not know of any. Notionally, top secret,
22 because it, by definition, could create more damage to national
23 security, would logically be more valuable. But I don't know of
24 any actual calculation estimates or actual financial data.

25 MR. KROMBERG: Thank you. I have no further questions.

1 THE COURT: Okay. All right. Can we let Dr. Lang go,
2 then?

3 MR. RICHMAN: Yes, Your Honor.

4 MR. KROMBERG: Yes, Your Honor.

5 THE COURT: All right. Dr. Lang, thank you very much for
6 taking your time today to answer our questions, and have a good
7 afternoon, sir.

8 THE WITNESS: Thank you.

9 MR. KROMBERG: Your Honor, if I might say, what I know
10 about Dr. Lang is he's a curious man, and he may want to continue
11 to watch. I don't know. But if he does, I ask that he be
12 allowed to continue to watch.

13 THE COURT: Sure.

14 MR. KROMBERG: But I don't know if he does or doesn't.

15 THE COURT: Okay. Do you have any objection to that,
16 Mr. Richman? We're just -- we're dealing with the --

17 MR. RICHMAN: It -- I mean, it's a public hearing, so --

18 THE COURT: Yeah.

19 MR. RICHMAN: -- I guess I don't.

20 THE COURT: Okay. All right. Well, Dr. Lang, you're
21 welcome to stay with us if you wish and for as long as you wish,
22 so --

23 All right. Let's turn to the other motions that we have
24 to resolve today. And I think the simplest is the government's
25 motion for a judicial notice of time zones. And as I understand

1 it, there -- there's no objection to that.

2 Ms. Mertz.

3 MS. MERTZ: There's no objection, Your Honor.

4 THE COURT: I'm sorry?

5 MS. MERTZ: There's no objection, Your Honor.

6 THE COURT: All right. Then that motion will be granted.

7 Second is the government's motion to admit summary charts
8 in lieu of the admission of the underlying summarized documents.
9 And as I understand it, the defense does not object as long as
10 they have the ability to review the actual underlying documents
11 and the summary charts themselves in advance of trial; is that
12 correct?

13 MS. MERTZ: That's correct, Your Honor.

14 THE COURT: Okay. All right. Then that motion will be
15 granted.

16 And as I understand it, the government has supplied the
17 underlying documents for your review?

18 MS. MERTZ: They have.

19 THE COURT: Okay.

20 MR. KROMBERG: I will note, Judge, that it's an iterative
21 process and --

22 THE COURT REPORTER: I'm sorry, can you repeat that?

23 MR. KROMBERG: Iterative. Well, let me strike that.

24 I've made mistakes on it before, and I'm sure I'm going to
25 make them again, so it may well be that the charts that I

1 provided to the defense may have small modifications and
2 improvements to them, but the information, I believe, is correct
3 at this point that I have provided to the defense.

4 THE COURT: Okay. Then let's look, then, at 170, the
5 government's motion to admit certain trial exhibits, and they are
6 broken out between GX202 through 206-C -- or 2067, and then GX711
7 and 714. And I understand that the defense does not object to
8 the introduction of 711 and 714 as not being hearsay. They are
9 the certificates of nonexistence of records from the NSA and the
10 NGA, but do object to the 200 series exhibits.

11 The government filed a reply which may have modified your
12 position on those 200 series documents.

13 Well, what is your position today, Ms. Mertz?

14 MS. MERTZ: Your Honor, we maintain our objection to the
15 200 series of exhibits that they -- that the government is
16 seeking admission for. The documents that they are talking
17 about, first of all, we would submit that they're irrelevant.
18 They are screenshots from various websites, booksellers, Amazon.
19 However, even if the Court were to find them marginally relevant,
20 they are both confusing and prejudicial. The government appears
21 to be submitting them as evidence that some of these documents
22 were offered for sale or have been offered for sale. However,
23 they're not probative in any meaningful way to a jury.

24 And on the issue of value, the government isn't offering a
25 way for the jury to parse the website values that are provided.

1 Some of which are not even in American dollars. And how --
2 there's no meaningful way for the jury to determine whether or
3 not those values are values that should be attributed to the
4 document itself as a printout or the document itself as a bound
5 document that is more easily available. Some -- or even the
6 analysis that is provided, for example, in the book, alongside
7 the documents. The documents themselves are all available for
8 free on the Internet, and that's, in fact, the very subject of
9 this case, right.

10 But the examples that the government has given don't allow
11 the jury to assess the difference between, say, the 8-dollar
12 version of a bound document and the free version of the same
13 exact document available on, for example, the newspaper's
14 website. The -- what one thing that does appear to account for
15 some of the different values that are available is the form in
16 which the document is available.

17 So the government has provided examples of, say, Ben
18 Franklin's autobiography or the U.S. Code. The value that is
19 ascribed to those items, when they are available for free, is
20 different than the value that is ascribed to them when they're
21 available, say, as an audio book or as a single bound volume
22 instead of 1,000 pages of U.S. Code -- thousands of pages of U.S.
23 Code that have to be printed out.

24 There is no meaningful way in these exhibits to help or
25 assist the jury in assessing the actual value of the documents at

1 issue in this case. And because all of those nuances and
2 differences are essentially glossed over in just simply handing
3 the jury a set of printouts and various websites pertaining to
4 various documents, it threatens to be prejudicial and confusing
5 with very little relevance to the issues at hand.

6 THE COURT: All right. Thank you.

7 Mr. Kromberg.

8 MR. KROMBERG: There are different categories of documents
9 at issue here. First -- and by the way, Judge, we're referring
10 to the book just as the book and the reporter as the reporter
11 because we're not going to refer to the name of the book or the
12 name of the reporter in open court.

13 202 are screenshots of library card catalogs. Well, if
14 libraries across the country have -- if just these libraries
15 across the country have purchased approximately 100 copies of the
16 book and we're going to have a copy of the book and it's going to
17 say on the book that it costs, I forget, \$35, whatever it costs,
18 that's proof, and maybe not conclusive proof, but that's proof
19 that the jury is entitled to have as to the value of the
20 information that's in the book.

21 Now, the defense says -- suggests that the value of the
22 book is in the analysis of the reporter, not on the underlying
23 information because the underlying information was already
24 provided on the Internet. Well, the value of the analysis is
25 worthless if the underlying information is worthless. The only

1 reason that the interpretation could be worth something is if the
2 underlying information is worth something. So we were trying to
3 figure out what's the value of the underlying information. So
4 the price someone would pay for the analysis, I think, should be
5 able to be considered by the jury.

6 Now, we're not saying what is the value of the book.
7 We're saying what is the value of the information that the
8 reporter includes in the book and writes about in the book. No
9 one would pay a dime for analysis of information that was
10 worthless. The fact that people and libraries paid for the book
11 indicate that the information that is the subject of the analysis
12 is worth something.

13 Exhibit 204, yes, the book can be purchased.

14 Now, these pages show new copies and used copies. The
15 fact that there are used copies, it means that someone already
16 bought the book and now is reselling it. And the fact that they
17 were -- there are used copies on the market today reflect that
18 the people who bought the book, it means that the value of the
19 information was valuable. It wasn't just a -- and this goes back
20 to, I think, what Mr. Richman was talking about before, well, if
21 you offer something and nobody buys it. Well, the fact that
22 there are used copies on the market means that somebody bought
23 it.

24 205-A is just AbeBooks about us, because not everybody
25 knows what AbeBooks is.

1 205-B is the AbeBooks, pages for the purchase of the
2 reporter's book. AbeBooks sells used book. So it's just another
3 way of showing how the reporter's book was purchased by somebody
4 new and was being offered for sale used.

5 206-A is a document that has no analysis from the
6 reporter, and it's for sale, which suggests that that information
7 that was stolen has value.

8 206-B is, it's being purchased by people outside of the
9 country, who, I will say, might be foolish to purchase it when
10 they could just download it from the website of the media
11 organization. But still, it's an indication of value that people
12 around the world are trying to buy this document.

13 206-C is an excerpt from the book -- from that document,
14 and the reason that we want to use that is to show that what was
15 being offered for sale on Amazon is the same thing as what we're
16 going to introduce as the documents that were stolen. So 206-C
17 does not have -- does not -- is not proof that the book was sold.
18 It's proof that the book that was sold -- excuse me, not the
19 book, the document that was sold is the same thing as the
20 document that was stolen.

21 And 207 is the listing for the availability of that
22 document. And once again, a used bookseller is selling this
23 document indicating that somebody must have bought it new,
24 meaning that the document has value.

25 So I think that the defense is probably right that these

1 are not conclusive -- this is not conclusive proof of the value
2 of the information, but this is a reasonably good way of showing
3 that the information must have value if people are out there
4 buying books and documents with this information.

5 THE COURT: Okay.

6 MS. MERTZ: Your Honor --

7 THE COURT: Go ahead.

8 MS. MERTZ: Thank you, Your Honor.

9 Your Honor, the issue here is how much these documents
10 were worth, and the book is a good example because it's a
11 compilation of both the documents, which are concededly available
12 for free and somebody could get for free, but also analysis and a
13 bound format that's more convenient for use. But the issue that
14 we are raising is that the -- there's no way to tell why somebody
15 would purchase -- what is -- where is the value that the person
16 is spending their \$10, or however much it is, for that book? Why
17 are they buying it for that amount of money? It does not provide
18 the jury a meaningful way to assess the value of the documents as
19 compared to the other portions of the book. The --

20 THE COURT: Well, you -- so you've got a -- I'm not sure
21 exactly how the government is going to use this, but you've got
22 the book on sale, the 206-A, perhaps, or -- you've got the book
23 for sale for, you know, 649.

24 And do you -- are there separate records for the number of
25 books that have been sold in a given period of time, or is that

1 not part of your evidence?

2 MR. KROMBERG: We do not have evidence of how many books
3 were sold other than the availability of books that are used on
4 one hand, and two, the ones that the libraries have purchased.
5 We have evidence of the library card catalogs that indicate how
6 many copies of the books the library has purchased.

7 THE COURT: So you have total copies sold to libraries
8 around the country?

9 MR. KROMBERG: Only a -- almost random selection of
10 libraries that you just go on the library website and see, do
11 they have this book, and if so, take a screenshot of the card
12 catalog. But I do not know of a way to find out all libraries
13 across the country. This was just, "Well, let's just check this
14 library and see if they have it."

15 THE COURT: So you're not going to total up through any
16 number of sales by Amazon or AbeBooks the value of the books sold
17 during a period of time?

18 MR. KROMBERG: That's correct. The only thing that -- the
19 closest that we could come to that, I think, Judge, is taking the
20 number of copies that are listed as in the possession of the
21 libraries for which we have card catalog records, multiplying it
22 by what appears to be the list price of the book, and that alone,
23 that just comes out to be more than \$1,000, just for the
24 libraries. But maybe the libraries didn't pay full price for the
25 book. We don't know.

1 So the fact that the libraries have it and it's for sale
2 and there are used copies available indicate -- we believe,
3 indicate that the information in there was worth more than
4 \$1,000.

5 THE COURT: And do you have the quantity of the reporter's
6 book that have been sold in the marketplace that you intend to
7 admit?

8 MR. KROMBERG: No.

9 THE COURT: And how about the 2013 watch listing guide?

10 MR. KROMBERG: We do not, Judge.

11 THE COURT: Okay. All right. Well, that helps me
12 understand the limitations on the use that you intend to make.

13 And, Ms. Mertz, how do you respond to that?

14 MS. MERTZ: Your Honor, I think the discussion about the
15 library is a good example because it is a snapshot of really
16 libraries that have the book, and we don't know how they got the
17 book. We don't know how much they paid for the book. We don't
18 know what representation of the total number of books that were
19 published are accounted for in that snapshot of what libraries
20 have. We also are talking about a book that is only partially
21 the documents that are in question in this case. And so,
22 although it does provide a value, it doesn't really bear on the
23 question of the value of the specific documents at issue in this
24 case. It -- and that -- and not only that, but it threatens to
25 confuse the jury as to what actually -- what value is actually at

1 issue in this case.

2 THE COURT: Well, there -- as the government just stated,
3 there are different ways to look at it. And certainly, the --
4 Dr. Lang's testimony is a little different way of looking at it
5 as well. But the marketing of the materials that can be
6 identified in this case and the way that they have been marketed
7 and in part through the libraries and in part through sales of
8 new and used books are clearly evidence of value. The --
9 quantifying it is, as you have indicated, not a simple task, and
10 the weight that is going to be given to that evidence is a matter
11 that the jury will determine. But I do not see the 403 issue of
12 confusion or prejudice to the defendant in admitted -- admitting
13 the 200 series of documents. So your exception is noted, but I'm
14 going to admit the documents. I think they are admissible under
15 813 -- 803(17) and/or 807 under the federal rules.

16 All right. Then that leaves us with the government's
17 motion to allow business and electronic records, 168, and the
18 government has supplemented their original motion to include
19 Exhibit 430.

20 And so the defense had not objected on authenticity or
21 hearsay objections to 11 -- 611-C, 620-C, 701-A, 419-A, 420-A,
22 707, 708, 709, 427, 428, and 429, but did the object to the
23 remaining documents.

24 What -- Ms. Mertz, what's your position today?

25 MS. MERTZ: Your Honor, we can amend that position, and we

1 no longer have an authenticity or hearsay objection to 430
2 either.

3 THE COURT: Okay.

4 MS. MERTZ: So we don't have -- on any of those documents,
5 we have no objection to hearsay or admissibility. We would,
6 however, reserve our right to object at the time on prejudice or
7 relevance, although we don't expect or anticipate making many of
8 those objections, but given the nature of a trial, we would
9 reserve those rights.

10 THE COURT: Okay. Certainly, you're entitled to do so.

11 The -- as we've discussed on other occasions, the way that
12 the government has identified the copies and the -- how they've
13 used them, you think you've been satisfied now with the way they
14 went about that copying, that you understand what they did and
15 how they did it, and so you're not making a -- an objection on
16 that basis; is that right?

17 MS. MERTZ: That's correct, Your Honor.

18 THE COURT: Okay. All right. Thank you, then.

19 All right. What else do we have this afternoon, then?

20 MR. KROMBERG: Judge, I think that is all of the
21 outstanding motions. There is one ex parte motion that's
22 outstanding, the 163, which doesn't have to be resolved now, but
23 I just wanted to flag it. And we do have a question of -- so
24 that we can proceed under the new rules that we're living in.

25 What is the Court's position on whether the jurors will be

1 able to receive -- or have to receive individual exhibit books?
2 Are they going to be seated throughout the courtroom? Will they
3 be relying on the screens, or will we be giving them exhibit
4 books?

5 THE COURT: Um, who knows what happened in October,
6 whether books were being given out and whether everyone was
7 comfortable doing that?

8 MR. BERRANG: Your Honor, Alex Berrang for the government.
9 My understanding is that it varied by judge.

10 THE COURT: Okay.

11 MR. BERRANG: And so my understanding from a Judge Ellis
12 trial, which was a child pornography case and was much shorter in
13 length, that Judge Ellis required multiple binders for jurors,
14 not necessarily a binder per juror, but more than the one set,
15 certainly, that we usually provide.

16 And so just to amend something or add to what Mr. Kromberg
17 is noting, the reason we're asking this is because, as the Court
18 can imagine, it's quite a resource-intensive task on the
19 government's end to produce multiple binders, and if we need to
20 do so, we just need to make sure we have the staffing to do so
21 and get that in place as soon as possible.

22 THE COURT: Yeah. I'll get an answer to you shortly.
23 I'll leave it at that. I'll get you an answer shortly.

24 MR. BERRANG: Thank you, Your Honor.

25 MR. KROMBERG: Judge, a somewhat similar issue, the result

1 of the posture of the case, we provided our expert witness
2 notifications regarding the harm months ago, and we're hoping
3 that the defense will give us a little bit earlier of
4 notification of harm than the ten days before trial. Because
5 if -- after all this time, if there's an issue about classified
6 information right before trial, that would be unfortunate.

7 And so just so the Court knows, we have provided the
8 classified *Jencks* to the defense already. So we are not going to
9 have any issue, we don't think, of the defense getting parts of
10 our *Jencks* ten days before trial or five days before trial and
11 then having them saying, "Well, we want to use this." So, if the
12 defense wants to use any of that classified *Jencks*, they're going
13 to notify the Court substantially in advance so we don't get held
14 up.

15 But, in any event, we're trying to come up with a system
16 such that even though we have classified evidence, we would still
17 be able to -- we're trying to come up with a system such that,
18 even though we have evidence full of classified evidence and
19 we're in the world we're living in now, that we can get that
20 trial going when it should be going.

21 So in that, I hope that we can get the harm -- the expert
22 witness from the defense's report substantially in advance of the
23 ten days so that if there are issues with it, that we will be
24 able to respond.

25 THE COURT: Well, certainly, we've got six weeks before

1 trial, right? Yeah, six weeks.

2 So, Mr. Richman, let's take that request under
3 consideration and keep talking about it.

4 MR. RICHMAN: I think we had previously discussed 21 days.
5 Hadn't we -- three weeks. Hadn't we e-mailed about that? I
6 thought that we had, and that was my -- what I had on my
7 calendar.

8 MR. KROMBERG: Well, that's fine. That's fine, which I'm
9 glad we discussed it, but I forgot it.

10 THE COURT: Okay. Well, good. Then that's resolved.

11 I -- we probably will not be here in ten for trial. I
12 think if it all works out, we'll have the 9th floor, which has a
13 little more room, and the setup is a little better so the jury
14 can actually remain in the well of the court, and that will help
15 some. And I'm not -- I don't have confirmation of that, but I
16 think that that is likely to be the case. But I'll get you an
17 answer on the binder issue.

18 MR. KROMBERG: I have another question, Judge, that I'm
19 just going to ask. I'm not sure whether it means anything here,
20 but does the Court foresee any questionnaire involved for the
21 jury? I have not -- I was not thinking so, but apparently,
22 Judge Alston just did that and created a substantial amount of
23 procedural preparation. And if the Court was going in that
24 direction, we would like to know earlier rather than later. But
25 I'm not suggesting we need one. I just wanted to know.

1 THE COURT: Well, there's a questionnaire that's gone out
2 from the clerk's office about concerns about COVID by members of
3 the panel, and I don't know whether that's been sent out in each
4 case, but that's been sent out in several cases. And I don't --
5 I'll get the answer as to whether it's -- I thought it was going
6 to go out in every case, but I may be wrong about it. I didn't
7 have a trial in October, so I didn't experiment, but I'll get you
8 an answer on that as well.

9 MR. KROMBERG: Thank you, Your Honor.

10 THE COURT: All right. All right. Anything else today,
11 then?

12 MR. KROMBERG: Not from the government, Judge.

13 MR. RICHMAN: Your Honor, I had one matter I wanted to --
14 I've told the government about it. I wanted to disclose to the
15 Court -- I would like to do it in -- normally, I would say
16 sidebar, but perhaps if we could all remain in our positions but
17 close the public access line and treat it like a sidebar?

18 MR. KROMBERG: We have no objection to that, Judge.

19 THE COURT: All right. Then we'll close the public line,
20 then, and this --

21 You want this matter sealed for the time being?

22 MR. RICHMAN: Yes, Your Honor.

23 THE COURT: Yes. All right. And then the following --

24 MR. KROMBERG: Goodbye, Dr. Lang.

25 THE WITNESS: All right.

1 THE COURT: We're going to go into a closed session,
2 Dr. Lang. Thank you, sir. Have a good afternoon.

3 MR. RICHMAN: All right. Are we ready to proceed?

4 THE COURT: Yeah, I believe so. All right. Well, hold on
5 a second.

6 (The following further proceedings were sealed by order of
7 the Court.)

8 [REDACTED]

9 [REDACTED]

10 [REDACTED]

11 [REDACTED]

12 [REDACTED]

13 [REDACTED]

14 [REDACTED]

15 [REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

THE COURT: No, that -- I appreciate you bringing that to my attention and the government's attention, and I know that it's not the easiest subject to broach. All right. Then we'll just wait and see how that goes.

MR. RICHMAN: Thank you, Your Honor.

THE COURT: All right. Thank you all, then. We're in recess.

(Proceedings adjourned at 4:09 p.m.)

C E R T I F I C A T E

I, Scott L. Wallace, RDR-CRR, certify that the foregoing is a correct transcript from the record of proceedings in the above-entitled matter.

/s/ Scott L. Wallace

3/22/21

Scott L. Wallace, RDR, CRR
Official Court Reporter

Date